

Work Order ID 158159***158159***

Page 1

Monday, March 13, 2017 10:45:14 AM

Item ID: D3512-1 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Wearplate
Start Date: 3/14/2017 Start Qty: 3.00 ***3*** Cust Item ID:
Required Date: 3/20/2017 Req'd Qty: 3.00 ***3*** Customer:
Reference: SCHEDULE/S

Approvals: Process Plan: DAS 21 9-89 Date: MAR 13 2017 Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3512	D								

100

0.00

100

FLOW WATER JET

Waterjet

Memo

0.06

FLOW CNC Waterjet

1-Cut as per Dwg D3512

Dwg Rev: DProg Rev: D

2-Deburr if necessary

3 PR 17/03/14

110

0.00

110

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

3 DAS 46 9-89 17/03/15

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="width: 16.6%;">Skid-tube ☐</td> <td style="width: 16.6%;">Cross tube ☐</td> <td style="width: 16.6%;">Water Jet ☐</td> <td style="width: 16.6%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																															
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.01				3			DAS 38 9-89 MAR 15 2017
130 *130* Brake NC Brake NC	NC BRAKE Memo Deburr if necessary Form as per dwg D3512 using DT8179	0.04 0.07			DAS 30 9-89	3			MAR 15 2017
140 *140* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.01				3			DAS 38 9-89 MAR 16 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Identify as per dwg & Stock Location: <u>WAP02</u>	0.00							DAS 41 9-89
150						3			
Packaging	Memo	0.00			DAS 6 9-89				17-3-16
Packaging									
160	QC21- Final Inspection - Work Order Release	0.00							
160									
QC	Memo	0.05							17/3/21 J
Quality Control									

DAS
21
9-89 MAR 16 2017

DQA: _____ Date: _____



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Picklist Print

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Work Order ID: 158159

158159

Parent Item: D3512-1

D3512-1

Parent Item Name: Wearplate

Start Date: 3/14/2017

Required Date: 3/20/2017

Start Qty: 3.00

Required Qty: 3.00

Comments:

IPP Rev:A New Issue 06-06-20 JLM

IPP Rev:B Now SS as per Rev B 06-12-15 JLM

IPP Rev:C Rev C dwg 07-12-06 DD

IPP REV:D

13.12.11 ECN13-619/REV.D DWG DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S16GA		Purchased	No			100	sf	64.9700	0.29	0.91579			

M304S16GA

304/316 Sheet .063

DAS
46
9.29

17/03/15

Location

Loc Qty

Loc Code

MAT010

64.97

m134604

5

m136036

5.39

m136327

7.1

m136687

2.48

m136790

13

m136896

32

DQA: _____ Date: _____



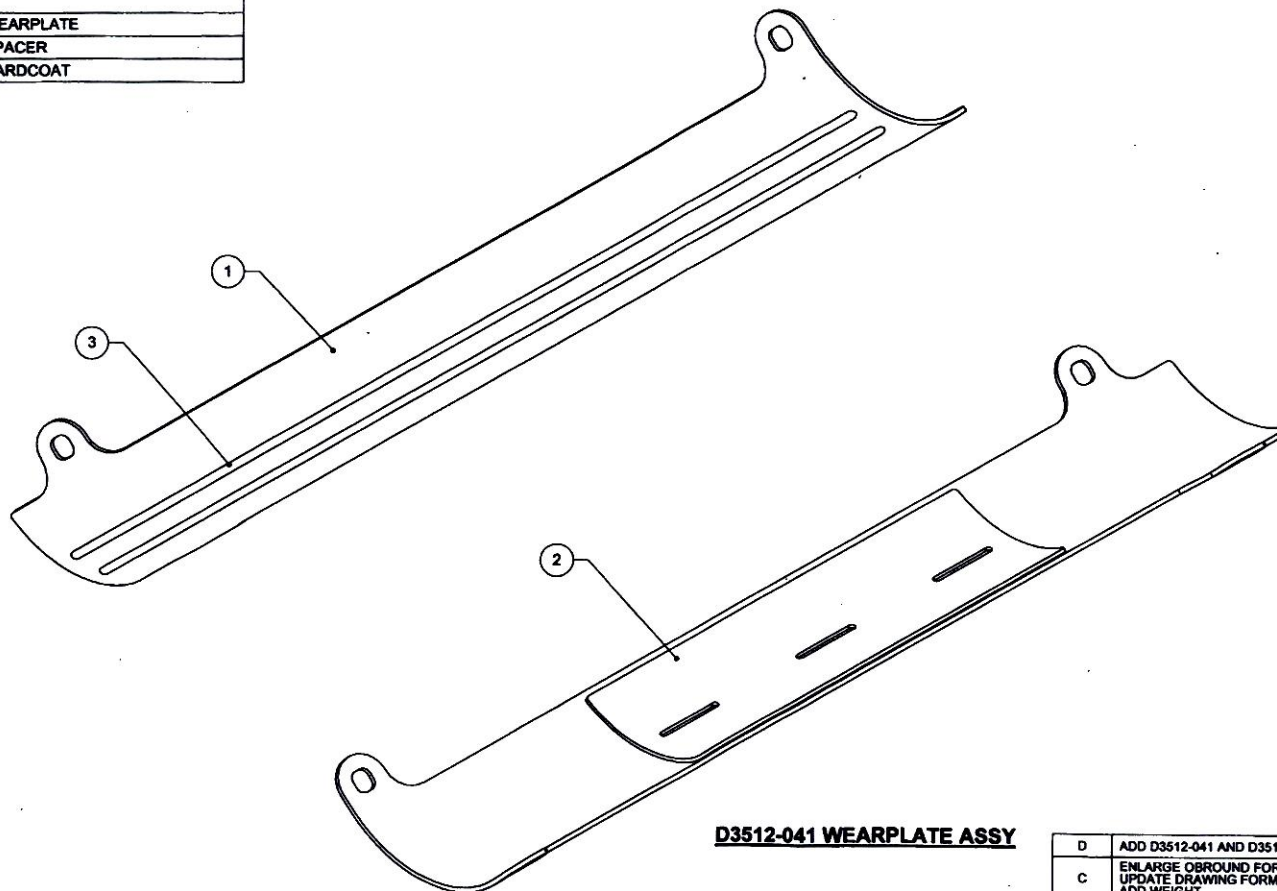
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Root Cause <table style="width:100%; border: none;"> <tr> <td style="width:12.5%;">Environment ☐</td> <td style="width:12.5%;">No Re-verification ☐</td> <td style="width:12.5%;">Pressure/Forced ☐</td> <td style="width:12.5%;">Temperature/Cure ☐</td> <td style="width:12.5%;">Power Loss/Surge ☐</td> <td style="width:12.5%;">Positioned Wrong ☐</td> </tr> <tr> <td>Design ☐</td> <td>Operator ☐</td> <td>Bending ☐</td> <td>Set-up ☐</td> <td>Folio/Program ☐</td> <td>Outside Dimensions ☐</td> </tr> <tr> <td>Doc/Data ☐</td> <td>Offset/Setup ☐</td> <td>Centre Not Concentric ☐</td> <td>BOM/Route ☐</td> <td>Grain ☐</td> <td>Over/Under tolerance ☐</td> </tr> <tr> <td>Equip/Tooling ☐</td> <td>Supplier ☐</td> <td>Cracks ☐</td> <td>Broken/Damage/Defect ☐</td> <td>Weld ☐</td> <td>Part Incorrect ☐</td> </tr> <tr> <td>Handling/Pre ☐</td> <td>Training ☐</td> <td>Crimp/Kink/Ripple/Wave ☐</td> <td>Inspection Incomplete/Unqualified ☐</td> <td>Wrong Stock Pulled ☐</td> <td>Part Lost/Missing ☐</td> </tr> <tr> <td>Material ☐</td> <td>Use for Testing ☐</td> <td>Cuffs ☐</td> <td>Contamination ☐</td> <td>Out of Sequence ☐</td> <td>Part Moved ☐</td> </tr> <tr> <td>Internal Transport ☐</td> <td>Poor Information ☐</td> <td>Crushing ☐</td> <td>Countersink ☐</td> <td>Off-set ☐</td> <td>Drawing ☐</td> </tr> <tr> <td>Tribal Knowledge ☐</td> <td>Rushing ☐</td> <td>Heat Treat ☐</td> <td>Cut Too Short ☐</td> <td>Mislabeled ☐</td> <td>Finish ☐</td> </tr> <tr> <td>LOA ☐</td> <td>Product Improvement ☐</td> <td>Wave/Twist in Tube ☐</td> <td>Instructions Incomplete/Unclear ☐</td> <td>Fit/Function ☐</td> <td>Misread ☐</td> </tr> <tr> <td>Substation ☐</td> <td>Process Improvement ☐</td> <td>Marks/Chatter ☐</td> <td>Drill Holes ☐</td> <td>Misaligned/off center ☐</td> <td>Turning Sequence ☐</td> </tr> <tr> <td>Past Expiry Date ☐</td> <td>Manufacturing Process ☐</td> <td colspan="4" rowspan="2" style="vertical-align: top;">OTHER : _____</td> </tr> <tr> <td>Misidentified ☐</td> <td>Past Due ☐</td> </tr> </table>				Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____				Misidentified ☐	Past Due ☐				
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ITEM	QTY -041	P/N	DESCRIPTION
	X	D3512-041	WEARPLATE ASSY
1	1	D3512-1	WEARPLATE
2	1	D3512-3	SPACER
3	A/R	2058B	HARDCOAT

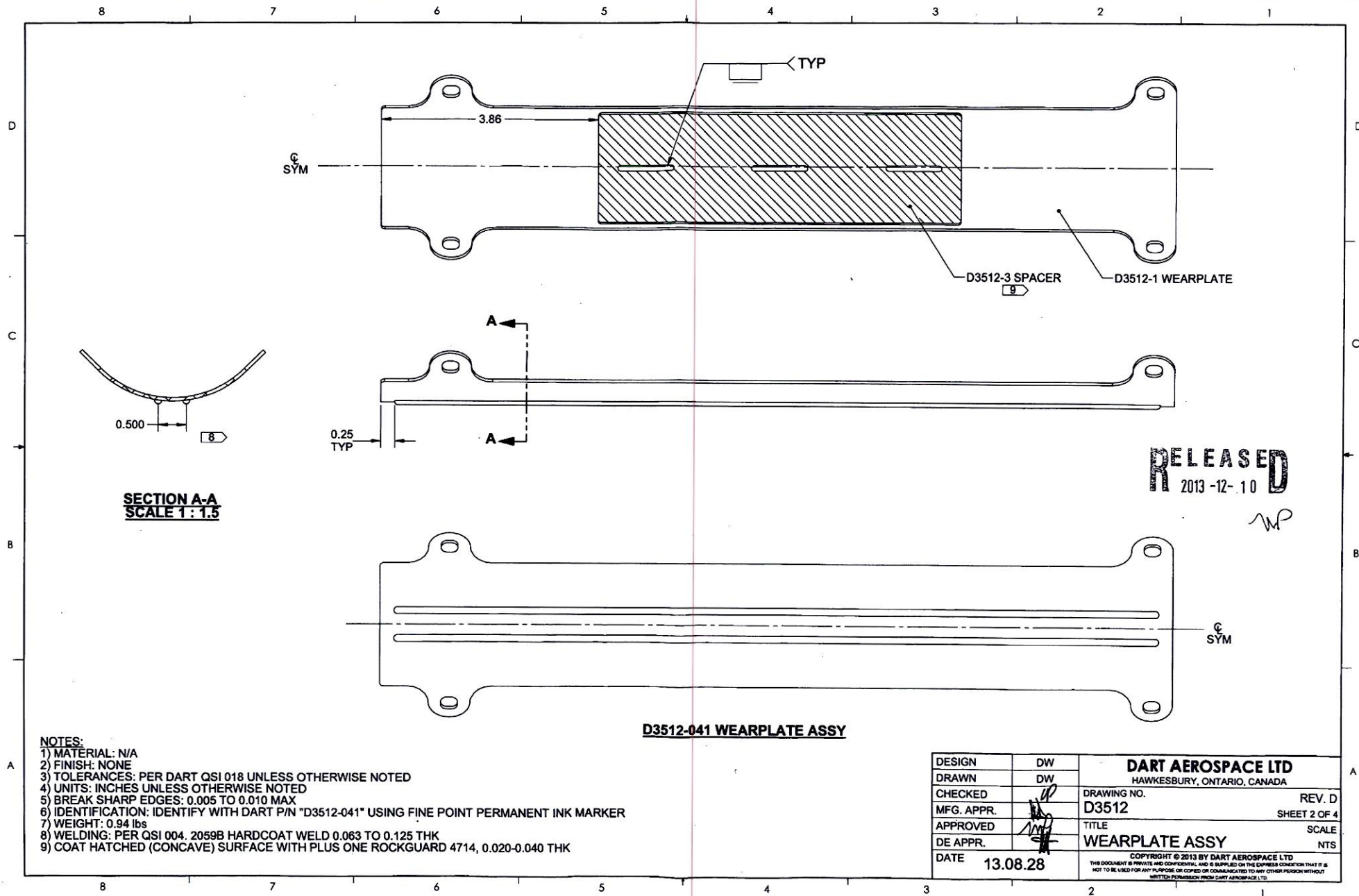


D3512-041 WEARPLATE ASSY

SHOP COPY
RETURN TO
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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 158159 MJS
1703-13

RELEASED
2013-12-10
wp

D	ADD D3512-041 AND D3512-3	DW	13.08.28
C	ENLARGE OBOUND FOR EASIER ASSEMBLY UPDATE DRAWING FORMAT ADD WEIGHT	PH	07.10.05
B	CHANGE MATERIAL TO STAINLESS STEEL	PH	06.10.27
A	NEW ISSUE	PH	06.04.21
REV.	DESCRIPTION	BY	DATE
DESIGN	DW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D3512 TITLE WEARPLATE ASSY COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS UNCLASSIFIED AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
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CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	13.08.28	REV. D	SHEET 1 OF 4
		SCALE	NTS



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2013-12-10

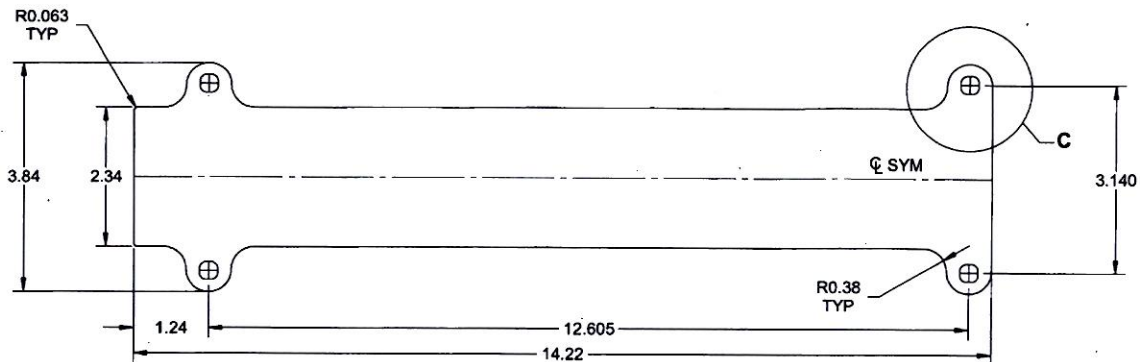
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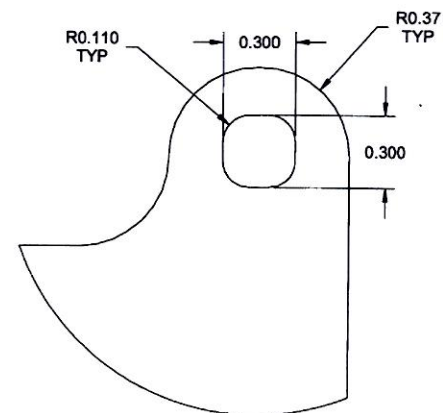
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C

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D3512-1F



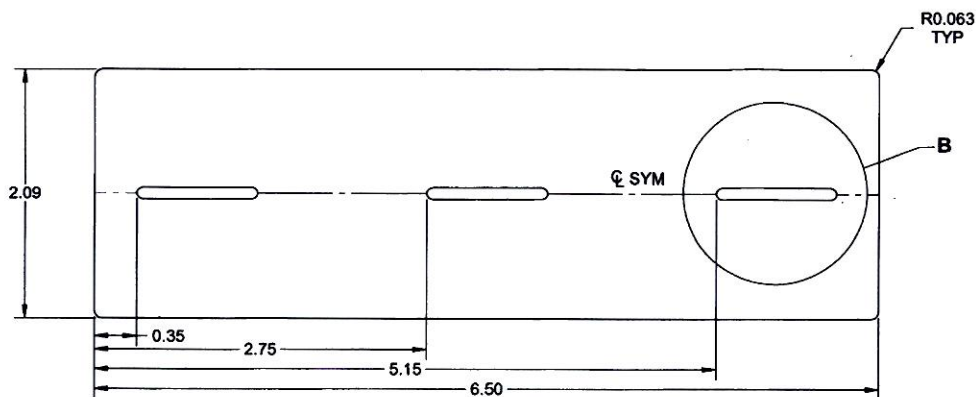
DETAIL C
SCALE 2X

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2013-12-10
WP

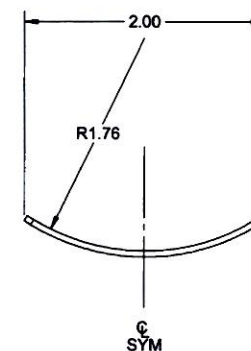
- NOTES:**
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL PER MIL-S-5059 OR AMS 5513 OR 5524 OR ASTM A240 18 GAUGE 0.063 THICK (REF DART SPEC. MS304S16GA)
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.63 lbs

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MFG. APPR.	AP	D3512	SHEET 3 OF 4
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DE APPR.	AP	WEARPLATE ASSY	NTS
DATE	13.08.28	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

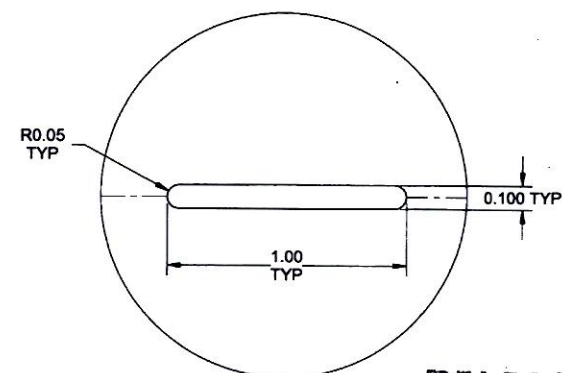
8 7 6 5 4 3 2 1



D3512-3F FLAT PATTERN



**D3512-3 SPACER
MAKE FROM D3512-3F**



**DETAIL B
SCALE 2X**

RELEASED
2013-12-10

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL PER MIL-S-5059 OR AMS 5513 OR 5524 OR ASTM A240 18 GAUGE 0.050 THICK (REF DART SPEC. MS304S18GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.19 lbs

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MFG. APPR.		D3512	SHEET 4 OF 4
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DE APPR.		WEARPLATE ASSY	NTS
DATE	13.08.28	COPYRIGHT © 2013 BY DART AEROSPACE LTD	
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